



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,672	02/19/2002	Kunisaburo Tomono	36856.628	1648

7590 03/26/2003

KEATING & BENNETT LLP
Suite 312
10400 Eaton Place
Fairfax, VA 22030

EXAMINER

ZARNEKE, DAVID A

ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,672

Applicant(s)

TOMONO ET AL.

Examiner

David A. Zarneke

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 11-19 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Takaya et al, US Patent Application Publication 2002/0009577.

Takaya teaches electronic parts comprising:

a body including a mixture [0067] of a ferrite powder [0090] and a resin [0062];

at least 1 electrode coil (13) in the body; wherein

a cross point impedance in the frequency-impedance characteristic is within the range of about 100 GHz to 10 GHz [0058].

Regarding claims 2 and 13, Takaya teaches the use of Ni ferrites [0090].

With respect to claims 3 and 14, Takaya teaches the use of polyimide resins and polyether ether ketone resins [0062].

As to claims 4 and 15, Takaya teaches the use of a columnar shaped body (Figures).

Regarding claims 5 and 16, Takaya teaches the use of conductive metal to form the coil [0101].

With respect to claims 6 and 17, Takaya teaches the center of axis of the coil electrode and the axis of the body to be parallel (Figures).

As to claims 7 and 18, Takaya teaches external electrodes on 2 sides of the body (Figures).

Regarding claims 8 and 19, Takaya teaches the use of multiple lamination sheets to form the body (Figure 2).

With respect to claims 11 and 22, Takaya teaches the ferrite particles to have a particle size of 0.01-100 microns [0093].

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 4-8, 11-13, 15-19 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakano et al., US Patent 6,028,353.

Nakano teaches a chip bead element comprising:

- a body (1) including a mixture of a ferrite powder and a resin;
- at least 1 electrode coil (2) in the body; wherein
- a cross point impedance in the frequency-impedance characteristic is within the range of about 1 GHz or greater (abstract).

Regarding claims 2 and 13, Nakano teaches the ferrite to include Ni ferrites (8, 43+).

With respect to claims 4 and 15, Nakano teaches the body to be columnar shape (Figures).

As to claims 5 and 16, Nakano teaches the coil electrode to be made of a conductive paste or metal foil bonding (13, 34+).

Regarding claims 6 and 17, Nakano teaches the center of axis of the coil electrode and the axis of the body to be parallel (Figures).

With respect to claims 7 and 18, Nakano teaches electrodes attached to 2 sides of the body (Figures).

As to claims 8 and 19, Nakano teaches an embodiment wherein 2 lamination sheets are used to form the body (Figure 8).

With respect to claims 10, 11, 21 and 22, it would have been obvious to one ordinary skill in the art at the time of the invention to optimize the resin glass transition temperature and the ferrite particle size (MPEP 2144.05(b)).

Claim Rejections - 35 USC § 103

Claims 9, 10, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaya et al, US Patent Application Publication 2002/0009577, as applied to claims 1 and 12 above.

Since Takaya teaches the use of either thermosetting or thermoplastic resins [0062], it would have been obvious to one ordinary skill in the art at the time of the invention to optimize the glass transition temperature of the thermosetting resin and the heat distortion temperature of the thermoplastic resin (MPEP 2144.05(b)).

Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al., US Patent 6,028,353, as applied to claims 1 and 12 above, and further in view of Kitamura, US Patent Application Publication 2002/0093415.

Nakano, which teaches the use of epoxy resins, acrylics etc (8, 29+), fails to teach the specific resins claimed.

Kitamura teaches a laminated common-mode choke coil comprising ferrite [0032] magnetic substrates (31 & 37) and insulating substrates (33 & 35) enclosing a coil (32 & 34) wherein the insulating substrates are made of polyimide, epoxy resins, acrylic resins, etc [3, 0032].

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the polyimide resin of Kitamura in the invention of Nakano because Kitamura teaches the equivalence of polyimide with epoxy and acrylic resins to polyimide resins.

The substitution of one known equivalent technique for another may be obvious even if the prior art does not expressly suggest the substitution. Ex parte Novak 16 USPQ 2d 2041 (BPAI 1989); In re Mostovych 144 USPQ 38 (CCPA 1964); In re Leshin 125 USPQ 416 (CCPA 1960); Graver Tank & Manufacturing Co. V. Linde Air Products Co. 85 USPQ 328 (USSC 1950).

Claims 9, 10, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al., US Patent 6,028,353, as applied to claims 1 and 12 above.

Since Nakano teaches the use of either thermosetting or thermoplastic resins (8, 29+), it would have been obvious to one ordinary skill in the art at the time of the invention to optimize the glass transition temperature of the thermosetting resin and the heat distortion temperature of the thermoplastic resin (MPEP 2144.05(b)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Zarneke whose telephone number is (703)-305-3926. The examiner can normally be reached on M-F 10AM-6PM.

Application/Control Number: 10/076,672
Art Unit: 2827

Page 7

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (703)-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-7722 for regular communications and (703)-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

David A. Zarneke
March 24, 2003

David A. Zarneke
Art Unit 2827